Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh
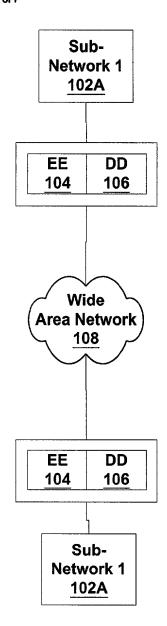Atty. Docket No.: Case 4995US
Sheet 1 of 7

Figure 1

Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh
Atty. Docket No.: Case 4995US
Sheet 2 of 7

Detector
Component
202

Transmission
Component
204

Encoding/
Encapsulation
Component
206

104

Detector
Component
202

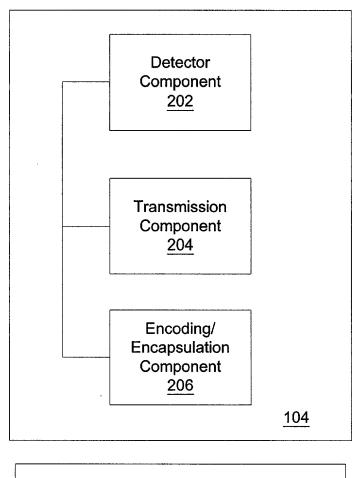Decoding/
Decapsulation
Component
210

106

Figure 2

Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh
Atty. Docket No.: Case 4995US
Sheet 3 of 7

Figure 3a

Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh
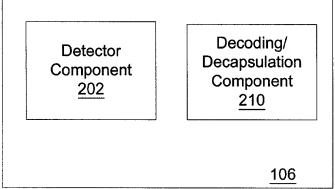Atty. Docket No.: Case 4995US
Sheet 4 of 7

**Central/
HeadQuarters
Network
312**

EE 104	DD 106

Wide Area
Network

EE 104	DD 106

EE 104	DD 106

EE 104	DD 106

**Branch Office
Sub Network
314A**

**Branch Office
Sub Network
314B**

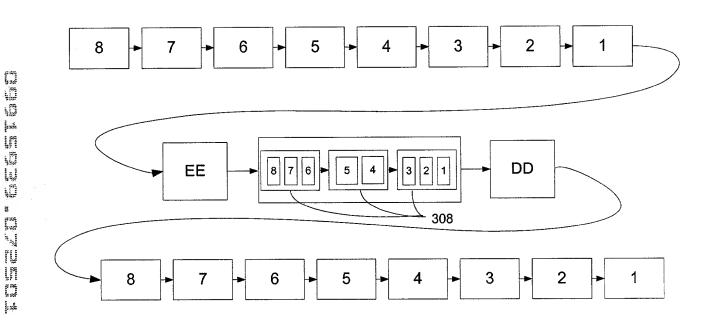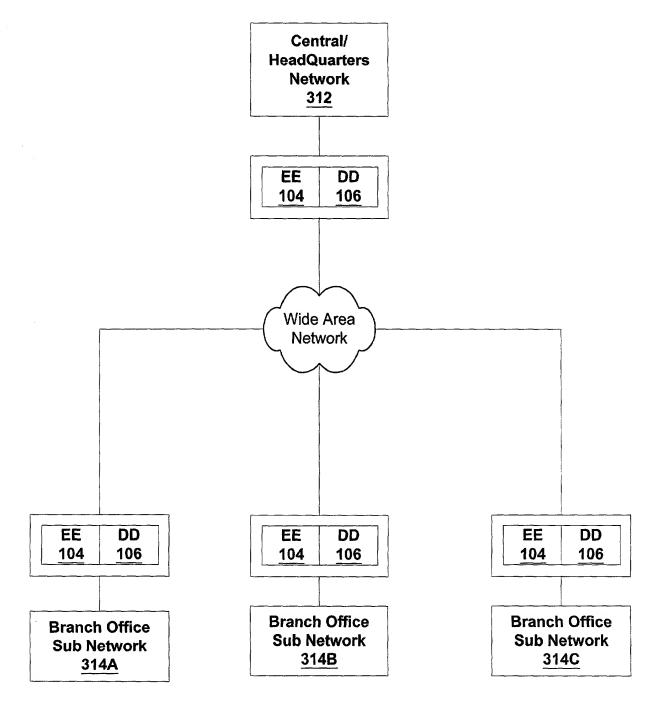**Branch Office
Sub Network
314C**

Figure 3b

Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh
Atty. Docket No.: Case 4995US
Sheet 5 of 7

Begin Data
Transfer

Intercept
packets at
connectionless   402
network layer

Encode each
packet   404

Encapsulate
each encoded   406
packet

Transmit
encoded and
encapsulated   408
packets

Decode and
decapsulate
encoded   410
packets

Re-inject the
decoded and
decapsulated
packets into   412
network layer

Figure 4

Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh
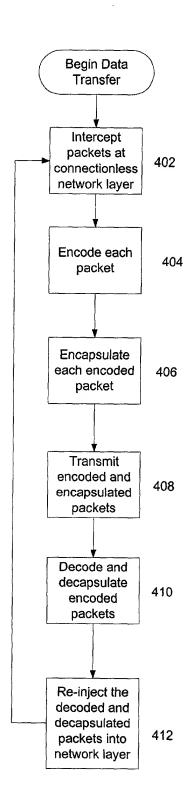Atty. Docket No.: Case 4995US
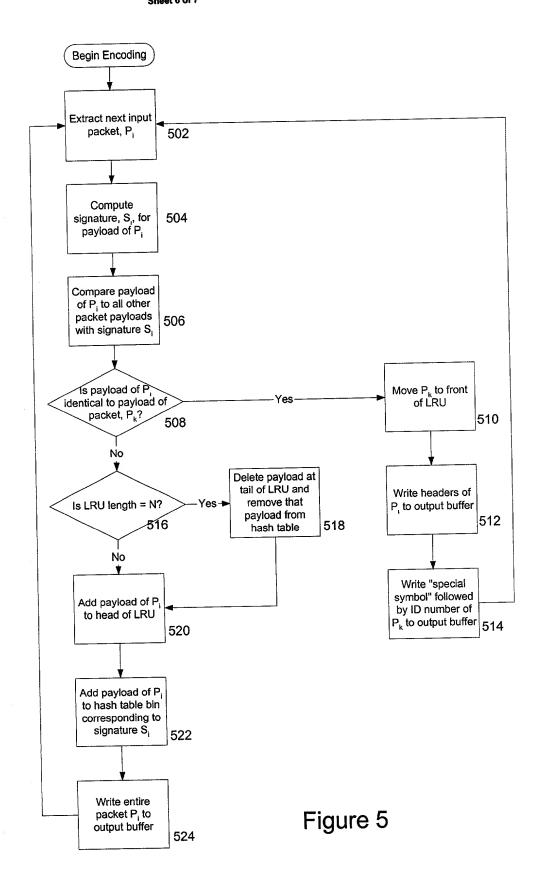Sheet 6 of 7

Figure 5

Title: "NETWORK ARCHITECTURE & METHODS FOR
TRANSPARENT ON-LINE CROSS-SESSIONAL ENCODING
& TRANSPORT OF NETWORK COMMUNICATIONS DATA"
Application No.: Not Yet Assigned
Inventors: Amit P. Singh .
Atty. Docket No.: Case 4995US
Sheet 7 of 7

Begin Decoding

Extract next
packet header, H_i,
from input buffer   602

Is header followed
by "special symbol"?   —Yes▶   Read payload ID
number, P_k —▶   Move payload P_k
to front of LRU   608
604
606

No

Compose new
packet with
header H_i +
payload P_k 610

Read entire
payload, P_i 616

Inject new packet
directly at network
layer for
transmission   612

Is LRU length = N?   —Yes▶   Delete payload at
tail of LRU
618   620

No

Add P_i to head of
LRU   622

Inject entire
packet directly at
network layer for
transmission   624

Figure 6